



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Adress: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,382	03/25/2004	Takeshi Funahashi	Q80335	5530
23373	7590	11/12/2009	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			NGUYEN, TRANG T	
ART UNIT	PAPER NUMBER			
			3686	
NOTIFICATION DATE	DELIVERY MODE			
11/12/2009	ELECTRONIC			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@SUGHRUE.COM
PPROCESSING@SUGHRUE.COM

Office Action Summary	Application No. 10/808,382	Applicant(s) FUNAHASHI ET AL.
	Examiner TRANG NGUYEN	Art Unit 3686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

Status

- 1) Responsive to communication(s) filed on 07/16/2009.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7 and 9-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-7 and 9-16 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/0256/06)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Status of Claims

1. The following is a Final office action in response to the communications received on July 16, 2009.
2. Claims 1-7 and 9-16 are currently pending and have been examined.
3. Claims 1, 2, 4-7, 9, 10 and 12 have been amended.
4. Claim 8 has been cancelled.
5. Claims 13-16 have been added.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-2, 4-5 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Ohara (US 6,934,409 B2).

Regarding Claim 1:

Ohara, as shown, discloses the following limitations:

An image processing apparatus, having a display, a processor, and storage under control of said processor and implementing one or more units, comprising:

- *an image-processing history storing unit operable to store details of image processing performed for a medical image of a patient and which correspond to a name of said patient;*
- *an image acquisition unit operable to obtain a name of a patient and a newly obtained medical image in such a manner that name of the patient and newly obtained medical image correspond to each other;*
- *an image-processing details extraction unit operable to extract said details of said image processing stored in said image-processing history storing unit to correspond to said name of said patient newly obtained by said image acquisition unit other;*
- *an image processing unit operable to perform image processing having details that are the same as said details of said image processing thus extracted, for said medical image newly obtained by said image acquisition unit patient (See at least Abstract; Column 2, Lines 35-47; Column 13, Lines 17-67; Column 14, Lines 1-11).*

Ohara does not explicitly teach the specific type of image-processing (e.g. details extraction unit) recited in the claim; however, these differences are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited steps would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this will not distinguish the claimed invention from the prior art in terms of patentability.

Regarding Claim 2 Ohara further discloses:

*An image processing apparatus as claimed in claim 1, wherein
said image-processing history storing unit stores said medical image of said
patient in such a manner that said medical image correspond to said name of
said patient and a name of a body location site where said patient is
examined; said image acquisition unit further obtains the name of the body
location site newly; and said image-processing details extraction unit extracts
said details of said image processing stored in said image-processing history
storing unit to correspond to said name of said patient and said name of said
site that were newly obtained by said image acquisition unit (See at least
Column 13, Lines 17-39).*

9. Claims 3 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Ohara (US 6,934,409 B2) in view of Rothschild et al. (US 6,678,703 B2).

Regarding claim 3:

Ohara may or may not explicitly disclose the following information.

An image processing apparatus as claimed in claim 1, wherein said image-processing history storing unit stores said details of said image processing that was performed for said medical image when diagnosis based on said medical image was input in an electronic medical chart.

However, it is old and well-known in the arts to store (or input) patient medical information including image data in an electronic medical chart as evidence by Rothschild (See at least Figure 9; Column 18, Lines 28-48).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Ohara so as to have included storing image processing history in an electronic medical chart, in accordance with the teaching of Rothschild, in order to process subsequent image of the same patient based on the data extracted from the image processing history, to have improved the efficiency of the system, since so doing could be performed readily and easily by any person of ordinary skill in the art, with neither undue experimentation, nor risk of unexpected results.

Regarding Claim 4 Ohara further discloses:

An image processing apparatus as claimed in claim 1, wherein said image-processing history storing unit stores details of an operation related to a frequency that was performed for said medical image in order to diagnose at least one of a disease and injury of said patient, as said details of said image processing (See at least Column 3, Lines 16-26; Column 19, Lines 63-67;

Column 29, Lines 62-67; Column 30, Lines 1-13).

Regarding Claim 5 Ohara further discloses:

An image processing apparatus as claimed in claim 1, wherein said image-processing history storing unit stores a range of an intensity of brightness of said medical image that was selected for diagnosis of at least one of a disease and injury of said patient, as said details of said image processing (See at least Column 29, Lines 62-67; Column 30, Lines 1-13; Column 31, Lines 8-27).

10.Claims 6-7, 9-10, 14 and 15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Toda (US PGP 2002/0133313 A1).

Regarding Claim 6:

Toda, as shown, discloses the following limitations:

An image processing apparatus, having a display, a processor, and storage under control of said processor and implementing one or more units, comprising:

- *an image-processing history storing unit operable to store details of image processing performed for a medical image of a patient in such a manner that said details of said image processing correspond to a name of at least one of a disease and injury of said patient that was diagnosed;*
- *an image acquisition unit operable to obtain a name of at least one of a disease and injury and a newly obtained medical image;*
- *an image-processing details extraction unit operable to extract said details of said image processing stored in said image-processing history storing*

unit in such a manner that said details of said image processing correspond to said name at least one of a disease and injury newly obtained by said image acquisition unit.

- *wherein said image-processing history storing unit stores said details of said image processing in such a manner that said details of said image processing correspond to said medical image newly obtained, and*
- *said image acquisition further obtains a type of a patient to correspond to said medical image newly obtained, and*
- *said image-processing details extraction unit extracts said details of said image processing stored in said image-processing history storing unit, to correspond to said name of said at least one of said disease and injury and said type of said patient that were newly obtained by said image acquisition unit.*

See at least Fig. 6, Claim 1, and paragraphs 0104, 0295-0296, 0379.

Toda does not explicitly use the exact terms (such as image-processing details extraction unit, image acquisition unit or image-processing history storing unit) recited in the claim; however, these differences are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited steps would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this will not distinguish the claimed invention from the prior art in terms of patentability.

Regarding Claim 7 Toda further discloses:

The combination of Rothschild/Ito discloses the limitations as shown in the rejections above. Furthermore, Rothschild discloses:

An image processing apparatus as claimed in claim 6, wherein

- *said image-processing history storing unit stores said details of said image processing in such a manner that said details of said image processing correspond to said name of said at least one of a disease and injury as well as a name of a body location site that is examined,*
- *said image acquisition unit further obtains a name of a body location site to correspond to said medical image newly obtained, and*
- *said image-processing details extraction unit extracts said details of said image processing stored in said image-processing history storing unit, to correspond to said name of said at least one of a disease and injury and said name of said body location site that were newly obtained by said image acquisition unit.*

See at least paragraphs 0104, 0295-0296, 0379.

Regarding Claim 9 Toda further discloses:

An image processing apparatus as claimed in claim 6, wherein said image-processing history storing unit stores said details of said image processing in such a manner that said details of said image processing correspond to said name of said at least one of a disease and injury as well as a name of a doctor

who performed said image processing, said image acquisition unit further obtains a name of a doctor to correspond to said medical image newly obtained, said image-processing details extraction unit extracts said details of said image processing stored in said image-processing history storing unit, to correspond to said name of said at least one of a disease and injury and said name of said doctor that were newly obtained by said image acquisition unit (See at least paragraphs 0104, 0295-0296, 0379).

Regarding Claim 10:

Toda may or may not explicitly disclose the following information:

An image processing apparatus as claimed in claim 6, wherein said image-processing details extraction unit extracts one way of said image processing which has been used most request from among a plurality of details of image processing stored in said image-processing history storing unit to correspond to said name of said at least one of a disease and injury newly obtained by said image acquisition unit.

However, it is old and well-known in the art to keep track the number of times something has been used. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Toda so as to have included extracting and storing image processing history based on the number of time the modality has been used, in order to process subsequent image of the same patient based on the data extracted from the

image processing history, to have improved the efficiency of the system, since so doing could be performed readily and easily by any person of ordinary skill in the art, with neither undue experimentation, nor risk of unexpected results.

Regarding Claim 14 Toda further discloses:

An image processing apparatus as claimed in claim 6, wherein type of patient includes at least one of gender, age and weight of patient, and the medical image is searchable and acquire based on type, and the image-processing details is directly searchable based on type (See at least paragraph 0104).

Toda does not explicitly disclose searching medical image based on type or searching image-processing details based on type. However, it is old and well-known in the art to search a database based on certain criteria.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Toda so as to have included searching and acquiring medical image based on type, in order to process subsequent image of the same patient based on the data extracted from the image processing history, to have improved the efficiency of the system, since so doing could be performed readily and easily by any person of ordinary skill in the art, with neither undue experimentation, nor risk of unexpected results.

Regarding Claim 15:

Toda may or may not explicitly disclose the following information:

An image processing apparatus of claim 1, wherein the image processing details

is directly searchable based on the name of the patient.

However, it is old and well-known in the art to search a database based on certain criteria. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Toda so as to have included searching and acquiring medical image based on the name of the patient, in order to process subsequent image of the same patient based on the data extracted from the image processing history, to have improved the efficiency of the system, since so doing could be performed readily and easily by any person of ordinary skill in the art, with neither undue experimentation, nor risk of unexpected results.

11. Claims 11-12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Toda (US PGP 2002/0133313 A1) in view of Rothschild et al. (US 6,678,703 B2).

Regarding Claim 11:

Toda may or may not explicitly disclose the following information. However, Rothschild discloses:

An image processing apparatus as claimed in claim 6, wherein said image-processing history storing unit stores said details of said image processing when diagnosis based on said medical image was input in an electronic medical chart
(See at least Figure 9; Column 18, Lines 28-48).

Regarding Claim 12:

Toda may or may not explicitly disclose the following information. However,

Rothschild discloses:

An image processing apparatus as claimed in claim 6, wherein, when an electronic medical chart was selected, said image acquisition unit obtains said medical image and said name of said at least one of a disease and injury that are attached to said selected electronic medical chart, said image-processing details extraction unit extracts said details of said image processing that are stored to correspond to said name of said at least one of a disease and injury newly obtained by said image acquisition unit from said electronic medical chart, from said image-processing history storing unit, said image processing unit performs image processing having details that are the same as those extracted, for said medical image newly obtained by said image acquisition unit from said electronic medical chart (See at least Column 1, Lines 8-12; and Column 23, Lines 12-18).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Toda so as to have included storing image processing history in an electronic medical chart, in accordance with the teaching of Rothschild, in order to process subsequent image of the same patient based on the data extracted from the image processing history, to have improved the efficiency of the system, since so doing could be performed readily and easily by any person of ordinary skill in the art, with neither undue experimentation, nor risk of unexpected results.

12.Claims 13 and 16 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Toda (US PGP 2002/0133313 A1) in view of Ohara (US 6,934,409 B2).

Regarding Claim 13:

Toda may or may not explicitly disclose the following information. However, Ohara discloses:

An image processing apparatus as claimed in claim 6, wherein the image-processing history storing unit stores details of image processing performed for a medical image of a patient to correspond to a name of said patient; the image acquisition unit obtains a name of a patient and a newly obtained medical image in such a manner that they correspond to each other; the image-processing details extraction unit extracts said details of said image processing stored in said image-processing history storing unit to correspond to said name of said patient newly obtained by said image acquisition unit; and the image processing unit is operable performs image processing having details that are the same as said details of said image processing thus extracted, for said medical image newly obtained by said image acquisition unit (See at least Abstract; Column 2, Lines 35-47; Column 13, Lines 17-67; Column 14, Lines 1-11).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Toda so as to have included performing image processing having details that are the same as said details of

said image processing thus extracted, in accordance with the teaching of Ohara, in order to process subsequent image of the same patient based on the data extracted from the image processing history, to have improved the efficiency of the system, since so doing could be performed readily and easily by any person of ordinary skill in the art, with neither undue experimentation, nor risk of unexpected results.

Regarding Claim 16:

Toda may or may not explicitly disclose the following information. However, Ohara discloses:

An image processing apparatus of claim 1, wherein the image processing details are at least one of frequency enhancement process; gray scale; magnification; brightness adjustment; stacking speed and projection direction (See at least Column 3, Lines 16-26; Column 19, Lines 63-67).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Toda so as to have included frequency enhancement process as one of the image processing details, in accordance with the teaching of Ohara, in order to process subsequent image of the same patient based on the data extracted from the image processing history, to have improved the efficiency of the system, since so doing could be performed readily and easily by any person of ordinary skill in the art, with neither undue experimentation, nor risk of unexpected results.

Response to Arguments

1. Applicant's arguments filed 16 July, 2009 have been fully considered but they are not persuasive.
2. Applicant's arguments with respect to claims 1-7 and 9-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **TRANG NGUYEN** whose telephone number is **(571) 270-5483**. The Examiner can normally be reached on Monday-Thursday 7:00AM - 5:30PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **JERRY O'CONNOR** can be reached at **571.272.6787**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

/T. N./
October 24, 2009
Examiner, Art Unit 3686

/Gerald J. O'Connor/
Supervisory Patent Examiner
Group Art Unit 3686